Prioritization of Category 5 for the 2004 Washington Water Quality Assessment

As part of this list Ecology is required to submit a schedule and prioritization for the establishment of TMDLS for waters in Category 5. The Memorandum of Agreement signed by Ecology and EPA on how Ecology will conduct TMDLS on a watershed basis provides the schedule for completion of TMDLs. This process is described in detail on page 32 of Ecology's listing policy and in section II of the Memorandum of Agreement between EPA and Ecology signed October 29, 1997. As part of that scheduling process the listings are prioritized at the beginning of the scoping process. This is described in Section III of the Memorandum of Agreement.

Ecology's TMDL prioritization and scheduling process is a Five Step, Five Year process.

Year 1 SCOPING:
Identify and prioritize known and suspected water quality issues within the WQMA by assembling information from extensive community involvement and internal Ecology staff and reports, including the 303(d) list and the schedule for TMDL submittal. Produce a Needs Assessment and develop a TMDL priority list.

Year 2/3 DATA COLLECTION AND ANALYSIS:
Develop Quality Assurance Project Plans (QAPPs) for TMDLs. Conduct water quality monitoring, special studies, facility inspections, and other general research. Develop technical basis for TMDLs.

Year 4 PLAN OF ACTION:
Develop a Plan of Action in coordination with the watershed community that addresses the priority problems identified in Year 1. Issue draft TMDLs for public comment and subsequent submittal to EPA. Summarize strategies and management activities needed to implement TMDLs, to issue or reissue waste discharge permits, to form partnerships, and to address funding issues. Submit final TMDLs and summary implementation strategies to EPA. Develop a Plan of Action in coordination with the watershed community that addresses the priority problems identified in Year 1.

Year 5 IMPLEMENTATION:
Implement TMDLs; issue or reissue waste discharge permits, and work with local, state and federal programs, and partners to implement nonpoint pollution prevention and control activities.

The following is Ecology's schedule for addressing 303(d) listings:

2003

Begin the TMDL process by scoping the following water resource inventory areas:

WRIA 8 – Cedar-Sammamish	WRIA 19 – Lyre-Hoko
WRIA 9 – Duwamish-Green	WRIA 37-Lower Yakima
WRIA 13 - Deschutes	WRIA 54 – Lower Spokane
WRIA 14 – Kennedy Goldsborough	WRIA 55 – Little Spokane
WRIA 16 – Skokomish-Dosewallips	WRIA 56 – Hangman
WRIA 17 – Quilcene - Snow	WRIA 57 – Middle Spokane
WRIA18 – Elwha-Dungeness	

2004

Begin the TMDL process by scoping the following water resource inventory areas:

WRIA 3 – Lower Skagit	WRIA 52 - Sanpoil
WRIA 4 –Upper Skagit	WRIA 53 – Lower Lake Roosevelt
WRIA 5 - Stilliguamish	WRIA 58 – Middle Lake Roosevelt
WRIA 27 – Lewis	WRIA 59 - Colville
WRIA 28 – Salmon-Washougal	WRIA 60 - Kettle
WRIA 29 – Wind-White Salmon	WRIA 61 – Upper Lake Roosevelt
WRIA 30 - Klickitat	WRIA 62 – Pend Oreille
WRIA 31 – Rock-Glade	

2005

Begin the TMDL process by scoping the following water resource inventory areas:

WRIA 6 – Island	WRIA 42 – Grand Coulee
WRIA 7 Snohomish	WRIA 43 – Upper Crab-Wilson
WRIA 10 - Puyallup-White	WRIA 48 – Methow
WRIA 11 – Nisqually	WRIA 49 – Okanogan
WRIA 12 – Chambers-Clover	WRIA 50 – Foster
WRIA 36 – Esquatzel	WRIA 51 - Nespelem

Prioritization of Forest only 303(d) listings:

The state forest practices rules were designed and adopted, in part, to meet the requirements of the Clean Water Act and the state water quality standards. The rules, consistent with the Forests & Fish Report, contain the array of best management practices believed to be most effective in protecting and improving water quality and habitat for threatened and endangered species while maintaining a viable forest products industry. Because the rules are so detailed and complete, they essentially accomplish "early implementation" of the same best management practices

likely to be used if a TMDL had been produced. As such, they provide a pathway to achieving compliance with the state water quality standards and the Clean Water Act.

While the forest practices rules are not primarily water quality rules, Ecology has a special role in their adoption and implementation, since many of the rules directly affect water quality. The Forest Practices Board adopts the forest practices rules, which are primarily implemented by the Department of Natural Resources. However, for those sections of the rules pertaining to water quality protection, the Forest Practices Board must reach agreement with Ecology. Ecology also has authority to independently enforce the "water quality" sections of the rules. In addition, compliance and monitoring programs for forested lands are being developed by the Dept. of Natural Resources, in collaboration with WDFW, Ecology and other stakeholders.

Therefore, in those watersheds affected only by forest practices, listings for waters impaired by sediment, turbidity, or temperature caused by forest practices on state and private forest lands will generally be lower priority and will be addressed after July 1, 2009. Exceptions may be made if requested by the landowners. Listings caused by forest practices in mixed use watersheds will be addressed according to the schedule above. TMDLs prepared in mixed use watersheds will specify that the implementation mechanism for achieving load allocations for forest practices will be compliance with the forest practices rules.

Prioritization of Temperature Listings: Natural Conditions vs. Anthropogenic Sources

During development of the Water Quality Assessment listing process Ecology did additional analysis to determine the potential human contributions that might be affecting temperature listings. All of the temperature listings were plotted on maps with land use activities (such as agricultural, forestry, and urban areas, and industrial sites) to assist in determining which waterbodies are not influenced by human activity. In addition each regional office has reviewed the listings to determine where potential temperature impacts exist due to human contribution and where they do not exist. As part of the TMDL process a much more detailed modeling and analysis will be done to determine the exact contribution of human related activities. In most TMDLS that have been completed for temperature, the impacts of temperature tend to be more on nonpoint activities versus point source dischargers although this is dependant on the stream size.

Of the main pollutant parameters causing 303(d) listings, the most significant increase in listings occurs with temperature. This increase appears to be due to increased temperature monitoring efforts in the last several years, likely spurred by increased salmon habitat protection efforts and increased watershed planning efforts that have occurred since 1998. The collection of continuous monitoring data through the use of temperature probes has also proven to be a cheap and reliable method for gathering temperature data. So, the combination of increased salmon habitat studies and
having a low cost reliable method for gathering temperature data has resulted in increased temperature listings.

A key issue raised by point source dischargers during the public review process for the Water Quality Assessment with regard to increased temperature listings was the potential for creating an unfair bias towards point source dischargers to 303(d) listed waters for temperature. One concern was that the public might have an unwarranted negative perception towards point source discharges, targeting them as the culprits for the temperature increases. The other concern was the possibility of being unfairly regulated for temperature, since EPA generally recommends that NPDES permits meet end-of-pipe limits to 303(d) listed waters if a TMDL has not yet occurred.

EPA Region 10 acknowledges in the "EPA Region 10 Guidance for the Pacific Northwest State and Tribal Temperature Water Quality Standards" (April 2003) that although Region 10's general practice is to require that numeric criteria be met at end-of-pipe in impaired waterbodies, there are instances where end-of-pipe effluent limits for temperature may not be necessary to meet applicable water quality standards and protect salmonids in impaired waters. EPA also acknowledges that temperature impairments in Pacific Northwest waters are largely caused by non-point sources. Page 43 of the Guidance states:

Section 301(b)(1)(C) of the CWA requires the achievement of NPDES effluent limitations as necessary to meet applicable WQS. EPA Region 10's general practice is to require that numeric criteria be met at end-of-pipe in impaired waterbodies (i.e., those that exceed water quality criteria). However, EPA Region 10 believes that in some situations numeric criteria end-of-pipe effluent limits for temperature may not be necessary to meet applicable WQS and protect salmonids in impaired waters. This is because the temperature effects from point source discharges generally diminish downstream quickly as heat is added and removed from a waterbody through natural equilibrium processes. The effects of temperature are unlike the effects of chemical pollutants, which may remain unaltered in the water column and/or accumulate in sediments and aquatic organisms. Further, temperature impairments in Pacific Northwest waters are largely caused by non-point sources. However, there may be situations where numeric criteria (or near numeric criteria) end-of-pipe effluent limits would be warranted, such as where a point source heat discharge is significant relative to the size of the river.

In order to address the concern raised by point source dischargers, Ecology will clarify in the Permit Writers Handbook how to address permitted discharges into 303(d) listed waters for temperature.

For the 2004 Category 5 list, Ecology is making statewide temperature listings a priority for resolving the complex issues around temperature. This decision is based on the following:

- Temperature listings have almost doubled from the 1998 303(d) list. There were 437 temperature listings on the 1998 list, and there are currently 817 listings on the 2004 Category 5 list. The current list does not identify which waterbodies are the highest priority for minimizing human impacts to important salmon habitat.

- Temperature needs to be dealt with at the watershed or basin level in order to truly deal with the complexities of the natural condition component of temperature and human influences that cause or contribute to increased temperatures.

- Work needs to be done with a broad array of stakeholders and tribal governments to better determine when a temperature exceedance is significantly impaired by human influences.

A list of waterbodies in Category 5 for exceeding temperature can be found in the following regional documents:

- Eastern Regional Office (WRIAs 32 – 36, 41 - 44, 53 - 62)
- Central Regional Office (WRIAs 30, 31, 37 - 49)
- Northern Regional Office (WRIAs 1 - 9, 15)
- Southwest Regional Office (WRIAs 10 -14, 16 - 29)